

Enterprise Architecture

Robert Winter · Elmar J. Sinz

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After a period where implementation speed was more important than integration, consistency and reduction of complexity, architectural considerations have become a key issue of information management in recent years again. Being a traditional area of architecture models and architecture management, IT architecture has been extended by additional coverage and additional applications (like IT/business alignment) to develop into enterprise architecture (EA). EA is now widely accepted as an essential mechanism for ensuring transparency, consistency, compliance and ultimately flexibility/agility in companies and public agencies.

Although standardization efforts (e.g. Open Group's TOGAF) and regulations (e.g. Clinger-Cohen Act of the U.S.A.) contribute to a growing common body of knowledge about EA models, EA applications and EA management, there is still a considerable amount of debate in academia as well as in practice. A wide range of potential EA application scenarios, EA project types, EA management goals, EA scope, and EA modeling approaches leads to a plethora of different proposals and case experiences.

Regarding EA modeling, the variety of artifacts from business to software and IT infrastructure leads to a different understanding which artifacts, attributes and dependencies should be represented using which meta models on which level of detail. Regarding EA applications, it is not clear yet which EA scenarios result from a company's (or agency's) EA context and EA goals, and how the respective EA representations should be systematically engineered in a certain scenario. Regarding

R. Winter (✉)
Institute of Information Management, University of St. Gallen,
Müller-Friedberg-Strasse 8, 9000 St. Gallen, Switzerland
e-mail: robert.winter@unisg.ch

E. J. Sinz
Faculty of Information Systems and Applied Computer Sciences,
University of Bamberg, Feldkirchenstr. 21, 96045 Bamberg, Germany
e-mail: elmar.sinz@wiai.uni-bamberg.de

EA management, the systematic identification of EA roles and responsibilities needs as much attention as the systematic communication and controlling of EA value.

This special issue on EA is intended to contribute to the current EA discussion by providing a forum for contributions from different backgrounds. Submissions result partially from a global call for papers in AISWorld. Some other submissions were selected from the first workshop “Trends in Enterprise Architecture” (TEAR 2006) which was held in October 2006 in Hongkong. Out of 15 initial submissions, 9 papers went through various review cycles, and four papers finally made it into this special issue.

Riemp and Gieffers-Ankel focus on senior IT managers’ decision-making with regard to their application portfolios, and EA’s role therein. Through multiple case studies in large companies, they find out that IT managers consider and balance a set of aspects, each of which is supported by partial EA models maintained by specific groups within their IT departments. These models are, however, not sufficiently integrated. Based on the empirical findings, they propose indicators for each of the partial EA models to aggregate the application characteristics which are portfolio relevant. These are then integrated into an application portfolio dashboard.

Strano and Rehmani focus on the role of the enterprise architect. They empirically explore the enterprise architect’s role as viewed by subject matter experts within the executive branch of the U.S.A. Federal Government. Their survey identifies several functional roles and describes interfaces with other functional roles. The unique value of the enterprise architect’s role is analyzed, and the impact of not filling this role is described. Furthermore, the study examines the optimal organizational positioning and the competencies needed to maximize effectiveness in the role.

Wegmann, Lê, Regev and Wood present a method for defining an enterprise model in which the complete range of sub-systems from business to IT are systematically represented with the same modeling ontology. Their modeling ontology is based on the foundation modeling concepts defined in Part 2 of ISO/ITU Standard “Reference Model of Open Distributed Processing” (RM-ODP). Besides contributing a novel EA representation approach, Wegmann et al.’s work is also an example of using part 2 of the RM-ODP standard as a modeling ontology.

Gammelgård, Simonsson and Lindström propose a framework that helps to identify relevant questions for an assessment of EA and EA scenarios. Top dimensions of the framework are IT organization and IT systems as well as their connection to business organization. These top dimensions represent the areas which are controllable by IT management. Top dimensions are gradually broken down into sub-dimensions which in turn are detailed into specific questions. The questions can be used to measure on the EA, to evaluate alternative EA scenarios, and to demonstrate business value. The framework is applied to assess EA scenarios in a power company.

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